

NOXIOUS WEED MANAGEMENT FY11 REPORT



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***Montana Fish,
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Rangeland invaded by cheatgrass. Cheatgrass is not a state listed noxious weed but is a Priority 3 Regulated Plant in Montana. (John M. Randall, The Nature Conservancy, Bugwood.org)

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Diffuse knapweed flower (Cindy Roche, Bugwood.org)

EXECUTIVE SUMMARY

Montana Fish, Wildlife and Parks (FWP) owns, leases, manages, or holds in conservation easement about 610 sites across the state and is responsible for noxious weed management on 405,711 acres held in Fee Title and 109,940 acres that are leased. These sites include 38 administrative sites, 373 fisheries sites, 95 state park sites, and 138 wildlife sites (FWP Land Book 2011).

In Fiscal Year 2011 (FY11), active integrated weed management activities took place on about 6,947 acres and thousands more acres benefited from an aggressive biological control insects release program. FWP also uses sound grazing management to maintain range health thereby inhibiting weed establishment. Livestock grazing occurred on 88,348 acres of FWP managed land in FY11.

During FY11, FWP expended nearly \$353,989 for on-the-ground weed control efforts. In addition to on-the-ground efforts, more than \$313,238 was spent on weed education and outreach, grants, and other weed management activities. These figures do not include all personnel time and effort spent on fieldwork, reporting, weed plan preparation, contracts, training, etc. As such, all expenditures reported are minimum expenditures. Because of the highly invasive nature of noxious weeds and the associated challenges, FWP's annual weed control expenditures typically exceed proposed budgets.

Since completion of the Statewide Integrated Noxious Weed Management Plan in June 2008, Fish, Wildlife and Parks staff have been working towards fulfilling the requirements of the plan and addressing the action items identified therein. The plan was developed to replace and supercede Regional Six-Year Management Plans, bringing continuity and consistency to agency weed management.

In addition to over \$667,227 spent under the authority of Fish, Wildlife and Parks' weed management program in FY11, nearly four million in sportsmen's dollars was provided to private landowners through the Block Management Program for use in farm and ranch operations, which may include weed management activities. FWP also paid more than \$205,244 in Block Management Weed Incentive Payments to cooperators for private land weed management. In addition to FWP funding sources, 1.2 million dollars in federal trails project grant funding were available through FWP in FY11. Federal trails projects require weed management plans to be in place and frequently include a weed management component. An additional \$160,000 was made available for Off-Highway Vehicle Grant Projects that also contained weed management components. The Sikes Act resulted in \$33,738 in FWP funds being matched with federal funds for habitat improvements and weed management on federal lands in Montana.

In total, FWP had a potential fiscal-year impact of more than \$6 million state and federal dollars being made available for private and public land weed management and related activities.

INTRODUCTION

Montana Fish, Wildlife and Parks (FWP) owns, leases, manages, or holds in conservation easement about 610 sites across the state and is responsible for noxious weed management on 405,711 acres held in Fee Title and 109,940 acres that are leased. These sites include 38 administrative sites, 373 fisheries sites, 95 state park sites, and 138 wildlife sites (FWP Land Book 2011).

In Fiscal Year 2011 (FY11), active integrated weed management activities took place on about 6,947 acres and thousands more acres benefited from an aggressive biological control insects release program. Typically, long-term weed control success is neither a rapid nor a readily observable development, yet FWP strives for long-term success and uses available tools to manage noxious weeds.



Photo 1: In 2010, Russian olive was established as a Priority 3 - Regulated Plant in Montana. While generally not a concern on upland sites, it can be highly invasive in riparian areas. (William M. Ciesla, Forest Health Management International, Bugwood.org)

For the majority of FWP sites, on-the-ground weed control is accomplished via contract with county weed districts or private contractors. At times, spraying is subcontracted through the counties with private contractors. To supplement contracted weed control efforts FWP utilized 19 employee applicators and 40 employee operators licensed by the Department of Agriculture for herbicide application at FWP sites in FY11. FWP has a staff member assigned statewide weed management coordination duties as well as an aquatic invasive species program coordinator. The weed management coordinator assists managers with reporting weed management activities on FWP lands and acts as a liaison between FWP and other state agencies, county weed districts/boards, noxious weed control organizations, educators, and the general public.

How noxious weed management is addressed on FWP-managed sites depends on a variety of factors. Some sites are groomed, such as mowed lawns, and do not require chemical application. Management decisions are influenced by such factors as aesthetics, public occupancy, proximity to neighbors, potential weed seed transfer, and weed efforts of adjacent landowners. On other

areas, such as expansive Wildlife Management Areas, weed establishment is deterred through managing range and vegetative health with rest-rotation livestock grazing systems.

Sites like Fishing Access Sites require an exceptionally cautious management approach because they are inherently associated with water. Soil type, slope, riparian vegetation, water table, and proximity to surface water can limit the use of chemicals at these sites. Also, some of these sites are remote, poorly developed, and have poor access which prohibits regularly accessing the areas with spray equipment. On these types of sites, FWP must often rely heavily on biological control, a treatment method that is not always successful, and when successful, slow to result in visible improvement.

FISCAL YEAR 2011 NOXIOUS WEED MANAGEMENT

Montana Fish, Wildlife and Parks' Fiscal Year 2011 (FY11) spans July 1, 2010 through June 30, 2011. This report includes all contracted work and work performed by FWP staff that was billed and paid for during that time period. Because most contracted work is not billed until after the spray season, most fiscal year expenditures more accurately reflect work that was performed during the previous calendar year. For example, contracted work that was performed during the 2010 spray season (April 2010 through October 2010) would be billed and paid for in late 2010 and therefore be reflected as FY11 expenditures.

During FY11, FWP expended nearly \$353,989 for on-the-ground weed management efforts. Additionally, more than \$313,238 was spent on weed education and outreach, grants, and other weed management activities. Over the last three decades these numbers have been steadily increasing. This is due in part to increased herbicide and labor costs (inflation), improved record keeping, and increased on-the-ground control effort. These figures do not include all personnel time and effort spent on fieldwork, reporting, weed plan preparation, contracts, etc. As such, all expenditures reported in this document are minimum expenditures. Parks Division accounting records (SABHRS) of weed management expenditures are included in Appendix J. Regional breakdown of weed expenditures can be found in Appendix K. Because of the highly invasive nature of noxious weeds, FWP's annual weed management expenditures have not only been increasing but typically exceed proposed budgets.

In addition to FWP's direct on-the-ground control efforts, the Department participated in the following weed management related activities:

- The Block Management Program pays approximately \$4 million annually to cooperating landowners. These payments are intended to offset hunter impacts on enrolled lands, including impacts associated with noxious weed management. Through the Block Management Program, FWP potentially influences weed management on over eight million acres of Montana land enrolled in the program.
- Senate Bill 326, Section 26, authorized FWP to offer up to 5% in additional incentive payments to Block Management cooperators who agree to use those payments for specific weed management activities on lands under their control. For the 2010 (FY11) hunting season 1,286 Block Management cooperators chose to receive the weed

management payment. FY11 incentive payments totaled more than \$205,244. It is likely that much of this money is paired with Noxious Weed Trust Fund grant funding for weed control projects in Cooperative Weed Management Areas (CWMAs) that are led by County Weed Districts.

- Fish, Wildlife and Parks staff professionalism and dedication to noxious weed management has been exemplified by their continued membership in the Montana Weed Control Association (MWCA) and attendance of the annual MWCA conference. Thirty employees attended the 2011 annual conference. One group membership was purchased by the Wildlife Bureau for ten employees and two employees purchased personal memberships at their own expense.
- FWP further supported MWCA through the purchase of 2011 Calendars.
- FY11 was an exceptional year for biological control work by FWP staff with more than 150 biological control insect collections and releases conducted on FWP managed properties.
- Nearly 83,000 acres of FWP owned and managed land benefited from leased livestock grazing. These healthy rangelands can better resist the establishment of noxious weeds.



Photo 2: When Russian olive invades riparian areas, it can outcompete and displace native species such as cottonwood and willows. (Randy Westbrook, U.S. Geological Survey, Bugwood.org)

Recreational Trails and Off-Highway Vehicle Grant Programs for FY10

For FY11 over \$1.3 million in federal funds were available through FWP Parks Division for trails projects for the creation, completion, maintenance or renovation of recreational trails in Montana. Applicants are required to describe the pre-project status of weeds in the exact area proposed for the project and how monitoring and control of weeds will be conducted on the project area during and after construction. The sponsor must describe the weed status at the project site, what kind of weed encroachment the project might encourage, and what the sponsor

proposes to do to stop weed encroachment. Weed control costs on a project are legitimate trail costs and the sponsor may include these as part of the grant request. Exempted projects, such as ethics or safety education brochures and portable exhibits and displays, do not require a weed plan. The weed plan is valid for a period of two years for the purposes of a Recreational Trails Program grant application, if subsequent project proposals are identical.

Off-Highway Vehicle Grant funds totaling \$160,000 were available through FWP for FY11. Historically, many of the grants have included funding for weed education and management.



Photo 3. Russian olive can no longer be sold or intentionally spread in Montana. (James H. Miller, USDA Forest Service, Bugwood.org)

Sikes Act Projects

The Sikes Act of 1974 (Public Law 92-452) is federal legislation that allows for memoranda of understanding between state fish and wildlife agencies and federal natural resource agencies to develop a funding source and partner in projects for the restoration and enhancement of fish and wildlife habitat on public lands. In 1993, FWP developed agreements with the U.S. Forest Service and U.S. Bureau of Land Management to cost-share, on a 50:50 basis, for habitat restoration and improvements on public lands. Nearly every year projects are funded that have a strong weed control component, which in turn improve fish and wildlife habitat. This

cooperative funding recently lead to weed treatment on over 1,000 acres of federally owned and managed wildlife habitat.

Table 3: FWP Sikes Act dollars spent on noxious weed control projects in Calendar Year 2010.

Project Location	Project	Acres Treated	FWP Sikes Act Funding
Beaverhead-Deerlodge National Forest	Little Sheep Creek Noxious Weed Management	45 - 50	\$3,000
Beaverhead-Deerlodge National Forest	Trapper-Cherry Winter Range Weed Management	113	\$3,000
Beaverhead-Deerlodge National Forest	Stucky Ridge Complex Weed Management	639	\$10,000
Custer National Forest	Ekalaka Hills and Long Pines Noxious Weed Mgmt	200	\$4,738
Flathead National Forest	Fielding Meadow Knapweed Management	Not Reported	\$3,000
Gallatin National Forest	Absaroka-Beartooth Wilderness Weed Mgmt	Not Reported	\$5,000
Gallatin National Forest	Northern Yellowstone Winter Range Weed Mgmt	Not Reported	\$5,000
Total		>997	\$33,738



Photo 4: Babysbreath, while not a state-listed noxious weed, is causing problems for weed managers in northeast Montana and other areas of the state. (Steve Dewey, Utah State University, Bugwood.org)

Coordinator Update

Fiscal Year 2011 proved to be another very busy and involved year in weed management. As such, coordinator activities and projects consumed a significant portion of the available project budget.

- Countless hours were spent in discussion regarding plants petitioned for inclusion on the Montana Noxious Weed List. Over the years, Russian olive has been repeatedly petitioned for inclusion in the Montana Noxious Weed List and it was again petitioned in FY11. Recognizing the cover and forage benefits Russian olive offers for wildlife, FWP has opposed the designation of this plant as noxious. However, because preservation of native cottonwood and willow riparian communities is also a paramount concern, control or eradication of Russian olive in these habitats is at times needed. Keeping Russian olive off of the noxious weed list and instead designating it as a Priority 3 – Regulated Plant, which cannot be intentionally sold or spread in the state, is viewed as a great compromise for both sides of the “noxious weed fence.” Without such a compromise, future listing of Russian olive as a state designated noxious weed was likely.

The Montana Noxious Weed List was restructured in FY11. It was recognized by the State Noxious Weed List Committee that the structure of the list was inadequate to address not only plants that have invasive tendencies but do not meet the criteria for designation as noxious, but also that the categorical ratings were difficult to apply to new invaders and those species that are common and widespread. The Montana Noxious Weed List was therefore restructured into more logical and progressively strict “Priorities.” Priority 1A species, for example, is the highest priority and includes plant species that are not present in Montana and if and when found will require eradication; education; and prevention. The Montana Weed List (2010) is included in Appendix L.

- FWP coordinator participation on the MWCA Board of Directors has continued with attendance of the annual meetings and biannual board meetings.
- FY10 noxious weed management activities were summarized and provided for inclusion in the MWCA *Weed Times*.
- The FWP coordinator has maintained an active role on Montana Department of Agriculture Noxious Weed Management Advisory Committee and the Executive Board of the Statewide Noxious Weed Awareness and Education Campaign.
- In addition to these annual responsibilities the coordinator attended meetings of the Governor’s Noxious Weed Summit Advisory Council.
- As reported in FY10 Eurasian watermilfoil has taken a stronghold in Montana. Since the FY10 report, additional infestations have been identified in various locations across the state from the headwaters of the Missouri to the Fort Peck dredge cuts. Fish, Wildlife

and Parks' Aquatic Nuisance Species Coordinator and Aquatic Invasive Species Specialist have been busy with survey, inventory, and monitoring of invaded sites, operating boat check stations, and conducting education and outreach efforts.

- Montana Department of Agriculture organized and hosted the Invasive Species Summit October 19 - 20, 2010. FWP was well represented and several department staff including the statewide noxious weed management coordinator helped facilitate working group break-out sessions.

CONCLUSION

FWP owns and manages less than one-half of one percent of all lands in Montana, yet spends over half of a million dollars annually, not including staff time, for weed management on FWP-owned and managed land. In addition to the nearly \$353,989 spent directly on FWP managed lands in FY11, a total of nearly four million in sportsmen's dollars was provided to private landowners through the Block Management Program for use in farm and ranch operations, which often includes weed management activities. In FY11, FWP paid an additional \$205,244 in Block Management Weed Incentive Payments to 1,286 cooperators for private land weed control. The Sikes Act resulted in \$33,738 in FWP funds being matched with federal funds for habitat improvements and weed management on federal lands in Montana.



Photo 5: Control of blueweed, a Priority 2A state-listed noxious weed, has proven successful in Ravalli and Sweetgrass Counties but it is far from being eradicated.

(Robert Vidéki, Doronicum Kft., Bugwood.org)

In addition to FWP funding sources, more than 1.3 million dollars in federal trails and off-highway vehicle project grant funding were available through FWP in FY11. Federal trails projects require weed management plans to be in place and frequently include a weed control component.

The dedication of Fish, Wildlife and Parks to control and manage noxious weeds in Montana is evident in its integrated management and contributions to the cause. Thousands of biological control insect collections and releases have taken place on FWP lands, which benefit adjacent landowners as well. However, it is the individual efforts of Department personnel that truly have the “on-the-ground” impact. The experience and knowledge of these individuals must be maintained within the ranks so that ground gained is not lost as veteran land-managers hand over responsibility to up-and-coming managers. Expertise, coordination, and budgets must all come together to continue the Department’s noxious weed management success. Additionally, FWP professionals must recognize the critical role that they play in helping other weed managers recognize and address both positive and negative potential impacts resulting from weed management practices.



Photo 6: From border to border and boundary to boundary, the challenge of managing noxious weeds continues.

APPENDIX A

FY11 Weed Management Summary

APPENDIX B

FY10 Weed Management Summary

APPENDIX C

Region 1 – FY11 Weed Management Report

APPENDIX D

Region 2 – FY11 Weed Management Report

APPENDIX E

Region 3 – FY11 Weed Management Report

APPENDIX F

Region 4 – FY11 Weed Management Report

APPENDIX G

Region 5 – FY11 Weed Management Report

APPENDIX H

Region 6 – FY11 Weed Management Report

APPENDIX I

Region 7 – FY11 Weed Management Report

APPENDIX J

FY 2011 Parks Division Weed Budget & Expenditures (SABHRS)

**FY11 PARKS DIVISION
EXPLANATION OF DIFFERENCES
WEED MANAGEMENT REPORTS VERSUS SABHRS DATA**

- Weed reports provided by regional staff likely do not include all salaries/benefits paid to FWP staff for weed control. Regional report also might not include capital expenses.
- SABHRS lumps many personal services and travel expenses under one org number for region-wide weed control making it difficult to assess the expenditures to each state park. This allows flexibility in using budgeted funds at the region level but makes accounting difficult.
- SABHRS includes capital expenditures by region, which makes it difficult to assess expenditures to specific state parks. This allows flexibility in using budgeted funds at the region level but makes accounting difficult.
- Providing year-end SABHRS reports to each region will be phased in when requests for weed report information goes out to regional staff. This will allow staff to be more consistent on where region-wide weed funds and where capital funds were expended.
- Inclusion of personal service costs (salary and benefits), travel costs, etc. will also be phased in where possible to more closely balance the annual weed management reports and SABHRS report.

APPENDIX K

Montana Weed Laws and Regulations

APPENDIX L

Montana Noxious Weed List (September 2010)